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The long-term organization exhibited by peritidal sections occurs on a scale of 10's to 100's of meters; yet, the question persists, what specific stratigraphic characteristics are responsible for these changes? Two end-member hypotheses present themselves. First, thickness variation within peritidal sections could occur across all facies types. Wherein regions of a stratigraphic section are generally thicker, such variations could be driven by gradual changes in long-term rates of accommodation space creation. Alternatively, a second hypothesis suggests the existence of thickness-frequency relationships unique to specific results in variation about the average bed thickness. Long-term variation in bed-thickness as driven by lithogoly-specific thickness relationships could be the result to shifting facies mosaics across the depositional surface, or to more strictly allogenic changes in facies abundance in an up-dip of down-dip direction driven by eustasy or tectonism. Algal boundstone facies average 0.78 while mud and grain-rich particulate carbonate beds, while more abundant, average only 0.25 in thickness. Stratigraphic distribution of boundstone within the sequence strongly correlates with the shape of the Fischer plot constructed for this sequence. Elementary forward models of carbonate deposition tend to support the notion of lithology-specific thickness variation as being the dominant factor in controlling large-scale stratal architecture within peritidal sequences.